AMENDMENT TO THE CLAIMS

Please amend the claims as follows:

1. (currently amended) A method of forming a custom-made insole comprising the steps of:

randomly positioning a foot to be measured on a laser scanning station;

passing at least one laser scanning unit along an undersurface of the foot;

scanning the undersurface of the foot with the at least one laser scanning unit by directing at least one line of laser light along the undersurface;

measuring surface coordinates of the undersurface detected by the at least one laser scanning unit by gathering ~~determining~~ data which directly correlates to distance measurements between the at least one laser scanning unit and the underside of the foot;

processing the measured surface coordinates;

transmitting the processed measured surface coordinates to a data processing unit; and

milling a custom-made insole based on the transmitted surface coordinates.

2. (cancelled).

3. (previously presented) The method of claim 1, wherein the step of scanning the undersurface of the foot comprises directing a non-focused fan-shaped line of laser light along the undersurface and sides of the foot.

4. (previously presented) The method of claim 1, wherein the step of measuring the surface coordinates of the foot comprises determining a three-dimensional map of the undersurface of the foot.

5. (cancelled).

6. (previously presented) The method of claim 4, wherein a plurality of laser scanning units are passed along the undersurface and sides of the foot.

7. (original) The method of claim 1, further comprising the step of removably mounting an insole blank to a tray of a milling assembly.

8. (original) The method of claim 7, wherein the step of milling comprises moving a router along a first axis of movement to mill the insole blank along a length thereof.

9. (original) The method of claim 8, further comprising the step of moving the router along a second axis of movement to vary the depth of milling along the insole blank.

10. (original) The method of claim 9, further comprising the step of moving the tray along a third axis of movement to mill the insole along a width thereof.

11. (previously presented) The method of claim 10, wherein the movement of the router and tray along the first, second and third axes of movement is determined by the measured surface coordinates.

12. (original) The method of claim 11, further comprising the step of forwarding the measured surface coordinates from the computer to a plurality of stepper motors, wherein one stepper motor controls the movement of the router along the first axis of movement, a second stepper motor controls the movement of the router along the second axis of movement and a third stepper motor controls the movement of the tray along the third axis of movement.

13. (currently amended) A system for forming a custom-made insole, comprising:

at least one scanning station for supporting a foot to be measured, the at least one scanning station including at least one movable laser scanning unit for determining coordinates of an undersurface of the foot by directing at least one line of laser light along the undersurface of the foot, the at least one scanning unit including means for gathering ~~determining~~ data which directly correlates to distance measurements between the at least one laser scanning unit and the undersurface of the foot;

at least one insole-milling station in communication with the at least one scanning station, the at least one milling station including a milling assembly for forming the custom-made insole; and

control means for controlling the operation of the milling assembly based upon the coordinates determined by the at least one laser scanning unit.

14. (original) The system of claim 13, wherein the at least one scanning station includes a base for supporting the foot, the at least one laser scanning unit being movably disposed beneath the base.

15. (original) The system of claim 14, wherein the at least one scanning unit is mounted to a carrier which is movable along a length of the base.

16. (previously presented) The system of claim 15, wherein the base is made of tempered, safety glass and the at least one laser scanning unit emits a fan of laser light through the glass to directly measure the undersurface and sides of the foot.

17. (currently amended) A system for forming a custom-made insole, comprising:

at least one scanning station for supporting a foot to be measured, the at least one scanning station including a base having a length for supporting the foot, and at least one movable laser scanning unit for determining coordinates of an undersurface of the foot by directing at least one line of laser light along the undersurface, the at least one laser scanning unit including a first and second side portion extending upwardly from the base along the length thereof and means for gathering ~~determining~~ data which directly correlates to distance measurements between the at least one laser scanning unit and the undersurface of the foot;

at least one insole-milling station in communication with the at least one scanning station, the at least one milling station includes a milling assembly for forming the custom-made insole; and

control means for controlling the operation of the milling assembly based upon the coordinates determined by the at least one laser scanning unit.

18. (original) The system of claim 17, wherein the base, and the first and second side portions are made of tempered glass.

19. (original) The system of claim 18, further comprising a plurality of laser scanning units, wherein a laser scanning unit is movably disposed along the base, the first

side portion and the second side portion, respectively.

20. (previously presented) The system of claim 13, wherein the control means is a computer disposed in a lower stand of the at least one insole-milling station.

21. (previously presented) The system of claim 20, wherein the at least one insole-milling station includes a display device and an input device for entering and displaying customer information.

22. (previously presented) The system of claim 13, wherein the milling assembly is disposed in an upper unit of the at least one insole-milling station.

23. (original) The system of claim 22, wherein the milling assembly includes a tray for removably mounting an insole blank thereto and a router for milling the insole blank.

24. (original) The system of claim 23, wherein the router is movably disposed within the milling assembly to move along a first axis of movement whereby the router moves along a length of the insole blank.

25. (original) The system of claim 24, wherein the router is movably disposed in the milling assembly to move along a second axis of movement to vary the depth of milling along the insole blank.

26. (original) The system of claim 25, wherein the tray is movably disposed within the milling assembly to move along a third axis of movement such that the insole blank can be milled along a width thereof.

27. (previously presented) The system of claim 26, further comprising a plurality of stepper motors in communication with the computer, wherein one stepper motor controls the movement of the router along the first axis of movement, a second stepper motor controls the movement of the router along the second axis of movement and a third stepper motor controls the movement of the tray along the third axis of movement.

28. (previously presented) The system of claim 13, further comprising vacuum means disposed in the at least one insole-milling station for removing particles produced

during milling of the insole.

29. (previously presented) The system of claim 28, wherein the vacuum means includes an air plenum having an entrance located at the milling assembly.

30. (cancelled).